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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,525

04/16/2004

Charles D. Kim

EMP-138US

2153

24314

7590

06/30/2005

JANSSON, SHUPE & MUNGER, LTD
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EXAMINER

COURSON, TANIA C

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,525

Applicant(s)

KIM, CHARLES D.

Examiner

Tania C. Courson

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-19 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The first non-final rejection for claims 1-19 of the last Office action (filed January 10, 2005) is withdrawn. The first non-final rejection is being reissued in this paper.

Claim Objections

2. Claim 2 is objected to because of the following informalities:

a) line 2, "an second" should read "a second".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 9, 12 and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Krehel et al. (US 6,792,686 B2).

Krehel et al. disclose in Figures 1-6, a level comprising:

With respect to Claims 9 and 12:

- a) wherein a first dual-density end cap (14) is mounted to the first end (Fig. 1) and a second dual-density end cap (14) is mounted to the second end (Fig. 1), the end caps having an outer layer (66) and an intermediate layer (64), whereby impacts to an end cap result in compression of the end cap and dissipation of the impact to prevent damage to the level (column 7, lines 28-32);
- b) wherein the end caps further comprise inner layers (74) connecting the intermediate layers to the body (Fig. 6).

With respect to method Claims 17-18:

- a) providing a level having a body (12) defined by first (14) and second ends (14), adhering a dual-density end cap to each end (Fig. 6), each end cap having an intermediate layer (64) for connection with respect to a respective end (Fig. 6) and an outer layer (66) for connection to a respective intermediate layer (Fig. 6), the outer layer having an outer surface (Fig. 6), whereby each end cap absorbs impacts to the respective outer surface by allowing the respective outer surface to be moved toward the respective end during the respective impact (Fig. 6);
- b) wherein each end cap further includes an inner layer (74) for connection to a respective end and to a respective intermediate layer (Fig. 6).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10-11, 13-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krehel et al.

Krehel et al. disclose a level, as stated above in paragraph 4.

Krehel et al. further discloses wherein the intermediate layers are compressed more easily than the inner and outer layers (column 7, lines 28-32), wherein the intermediate layers are thermoplastic rubber (column 7, lines 27-29), wherein the body defines a body profile at the ends (Fig. 6), the outer layers define outer profiles which match the body profile (Fig. 6), and the intermediate layers include baffled profiles including portions matching the body profile and portions smaller than the body profile (Fig. 6), wherein the outer layers are bonded to the intermediate layers (Fig. 6), the intermediate layers are bonded to the inner layers (Fig. 6) and the inner layers are bonded to the ends (Fig. 6).

Krehel et al. do not disclose the following:

- a) intermediate layers having lower densities than inner and outer layers;
- b) wherein inner and outer layers are acrylonitrile butadiene styrene.

Regarding claims 10, 13 and 19: the density of the intermediate layers, Krehel et al. discloses a level having layers having different densities (Fig. 6) but does not disclose a particular value for this parameter. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide an intermediate layer having lower densities than the inner and outer layers, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the “optimum range” involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, one skilled in the art would change the density of the intermediate layer in order to suit the needs of the user of the device.

Regarding claims 11 and 14: Krehel et al. disclose the level having an outer layer (66) made of an elastomeric material (column 7, lines 35-36) and an inner layer made of a polypropylene material (column 7, lines 14-19). The particular type of material used to make the inner and outer layers, absent any criticality, is only considered to be the use of a “preferred” or “optimum” material out of a plurality of well known materials that a person having ordinary skill in the art at the time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of Applicant’s apparatus, i.e., suitability for the intended use of Applicant’s apparatus. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) where the court stated that a selection of a material on the basis of suitability for intended use of an apparatus would be entirely obvious. Therefore, one skilled in the art would change the type of material of the inner and outer layers in order to suit the needs of the user of the device.

7. Claims 1-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krehel et al.

Krehel et al. disclose a level including the following:

- a) a body (12) including a level face for measuring a surface (Fig. 1), the body extending from a first end to a second end (Fig. 1), at least one vial (16) mounted in the body at a predetermined angular relationship to the level face (Fig. 1) and a first end cap (14) fixed with respect to the first end (Fig. 1), the first end cap comprising an outer layer (66) and an intermediate layer (64), the intermediate layer fixed to the outer layer (Fig. 6), the intermediate layer positioned between the outer layer and the body (Fig. 6), whereby the first end cap absorbs impacts to the outer layer to prevent damage to the body (Fig. 6);
- b) further comprising a second end cap (14) fixed with respect to the second end (Fig. 1), the second end cap comprising a second outer layer (66) and a second intermediate layer (64), the second intermediate layer fixed to the second outer layer (Fig. 6), the second intermediate layer positioned between the second outer layer and the body (Fig. 6);
- c) wherein the intermediate layer is thermoplastic rubber (column 7, lines 27-29);
- d) wherein the first end cap further comprises an inner layer (74), the inner layer connecting the intermediate layer to the body (Fig. 6);
- e) wherein the body defines a body profile at the ends (Fig. 6), the outer layers define outer profiles which match the body profile (Fig. 6), and the

intermediate layers include baffled profiles including portions matching the body profile and portions smaller than the body profile (Fig. 6);

f) wherein the first end cap is adhered to the body (Fig. 6).

Krehel et al. do not disclose the following:

- a) intermediate layer having lower density than an outer layer;
- b) an inner layer having a higher density than an intermediate layer;
- c) wherein the inner and outer layers are acrylonitrile butadiene styrene.

Regarding claims 1, 2 and 4: the density of the intermediate layers, Krehel et al. discloses a level having layers having different densities (Fig. 6) but does not disclose a particular value for this parameter. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide an intermediate layer having lower densities than the inner and outer layers, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the “optimum range” involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, one skilled in the art would change the density of the intermediate layer in order to suit the needs of the user of the device.

Regarding claims 3 and 5: Krehel et al. disclose the level having an outer layer (66) made of an elastomeric material (column 7, lines 35-36) and an inner layer made of a polypropylene material (column 7, lines 14-19). The particular type of material used to make the inner and outer layers, absent any criticality, is only considered to be the use of a “ preferred ” or “optimum”

Art Unit: 2859

material out of a plurality of well known materials that a person having ordinary skill in the art at the time the invention was made would have found obvious to provide using routine experimentation based, among other things, on the intended use of Applicant's apparatus, i.e., suitability for the intended use of Applicant's apparatus. See In re Leshin, 125 USPQ 416 (CCPA 1960) where the court stated that a selection of a material on the basis of suitability for intended use of an apparatus would be entirely obvious. Therefore, one skilled in the art would change the type of material of the inner and outer layers in order to suit the needs of the user of the device.

Allowable Subject Matter

8. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed April 11, 2005 have been considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Krehel et al. (US 6,792,686 B2).

Art Unit: 2859

Conclusion

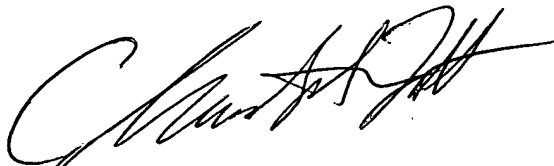
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania C. Courson whose telephone number is (571) 272-2239.

The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (571) 272-2245.

The fax number for this Organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DIEGO F.F. GUTIERREZ
SUPERVISORY PATENT EXAMINER
GROUP ART UNIT 2859

TCC
June 27, 2005

CHRISTOPHER W. FULTON
PRIMARY EXAMINER